

REMARKS

By this amendment, claims 28-30 have been amended. Accordingly, claims 28-30 are currently pending in the application, of which claims 28 and 30 are independent claims. Applicants respectfully submit that the above amendments do not add new matter to the application and are fully supported by the specification.

Entry of the Amendments and Remarks is respectfully requested because entry of Amendment places the present application in condition for allowance, or in the alternative, better form for appeal. No new matters are believed to be added by these Amendments. In view of the above amendments and the following Remarks, Applicants respectfully request reconsideration and timely withdrawal of the pending objections and rejections for the reasons discussed below.

Drawing Objection

In the Office Action, the drawings were objected to as failing to comply with 37 CFR 1.84(p)(5) for not including reference signs mentioned in the description.

Figure 45 has been amended to include lower insulating layer 601 and upper insulating layer 602 mentioned on Page 56, lines 7 to 18, as shown in the attached replacement drawing sheets.

Accordingly, Applicants respectfully request withdrawal of the drawing objection.

Specification Objection

In the Office Action, the specification at Page 1 Paragraph 1 was objected to as not containing the proper formalities.

The specification has been amended to include the phrase “now U.S. Patent No. 6,674,495” as suggested by the Examiner.

Accordingly, Applicants respectfully request withdrawal of the objection to the specification.

Claim Objection

In the Office Action, Claim 31 was objected to as not including the proper phrasing for a Markush group.

Claim 31 has been cancelled. This amendment is not made for the purpose of avoiding prior art or narrowing the claimed invention, and no change in claim scope is intended. Therefore Applicants do not intend to relinquish any subject matter by these amendments. Applicants respectfully submit that claim 31, as cancelled, renders the stated objection moot. Accordingly, Applicants respectfully request withdrawal of the objection for claim 31.

Rejections Under 35 U.S.C. § 102

Claims 28 and 29 stand rejected under 35 U.S.C. § 102(b) as being allegedly anticipated by Japanese Patent No. JP 02-028624 issued to Mishima, *et al.* (“Mishima”). Applicants respectfully traverse this rejection for at least the following reasons.

Claim 28, as currently amended, claims a thin film transistor array panel wherein the transistor comprises a semiconductor layer and ohmic layer. It further claims that the semiconductor layer has a double-layered structure with a lower layer and upper layer made of amorphous silicon layers which have different band gaps. As shown in Figure 47 and page 57 lines 11 to 14 of the present application, lower semiconductor layer 701 and upper

semiconductor layer 702 together form the whole semiconductor layer, 70, upon which ohmic layer 85 is formed. Mishima fails to teach all of these limitations of this claim.

By contrast, Mishima teaches a transistor which contains only a single-layer semiconductor layer, 24, as shown in Figure 1 upon which the contact layer 25 is formed. Since the semiconductor layer 24 is only composed of one layer of semiconductor material, Mishima fails to teach all of the limitations of Claim 28.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(b) rejection of claims 28 and 29. Since none of the other prior art of record discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claim 28, and all the claims that depend therefrom are allowable.

Claim 30 stands rejected under 35 U.S.C. § 102(e) as being allegedly anticipated by U. S. Patent No. 6,548,828 issued to Nakanishi, *et al.* ("Nakanishi"). Applicants respectfully traverse this rejection for at least the following reasons.

Claim 30, as currently amended, is directed to a thin film transistor having a gate insulating layer which comprises two layers, the upper gate insulating layer 702 and lower 701 gate insulating layer as indicated in Figure 45, as currently amended, and page 56 of the specifications. One of the insulating layers is composed of an organic insulating material, while the other is composed of one or more compounds selected from the group consisting of amorphous silicon nitride and amorphous silicon oxide. Nakanishi does not teach all of the features of Claim 30 and therefore does not anticipate it.

Nakanishi describes a two layer gate insulating film formed by a silicon nitride film 23 and a silicon oxide film 24 as described in Col. 3 lines 51-52 and in Figure 2. Nakanishi does

not mention an organic insulating material layer in the gate insulating film and therefore fails to anticipate Claim 30.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 102(e) rejection of claims 30. Since none of the other prior art of record disclose or suggest all the features of the claimed invention, Applicants respectfully submit that independent claim 30 is allowable.

Rejections Under 35 U.S.C. § 103

Claim 31 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U. S. Patent No. 6,548,828 issued to Nakanishi, *et al.* (“Nakanishi”) in view of U. S. Patent No. 5,202,572 issued to Kobayashi, (“Kobayashi”). Applicants respectfully traverse this rejection for at least the following reasons.

Claim 31 has been cancelled, rendering the rejection moot.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 31.

Allowable Subject Matter

Applicants appreciate the indication that claims 28-30 contain allowable subject matter. Claims 28, 29, and 30 have been amended to overcome the above-mentioned rejections.

Accordingly, Applicants submit that claims 28-30 are in condition for allowance.

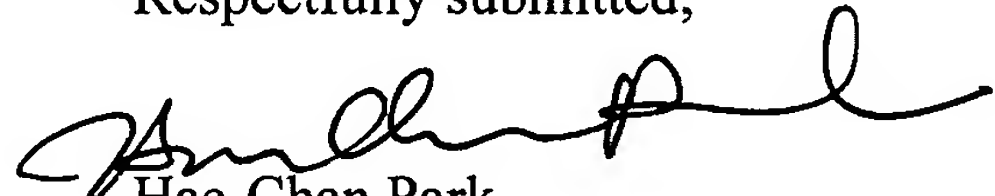
CONCLUSION

Applicants believe that a full and complete response has been made to the pending Office Action and respectfully submits that all of the stated objections and grounds for rejection have been overcome or rendered moot. Accordingly, Applicants respectfully submit that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicants' undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,



Hae-Chan Park
Reg. No. 50,114

Date: December 28, 2004

McGuireWoods LLP
1750 Tysons Boulevard
Suite 1800
McLean, VA 22102-4215
Tel: 703-712-5365
Fax: 703-712-5280
HCP:STS

\\COM\471777.1

Amendments to the Drawings

Attached hereto are replacement figure sheets for Figures 45, which include the changes, without markings, identified below.

We are also enclosing a red-lined version to show changes made.

Figure 45 has been amended to include reference signs lower insulating layer 601 and upper insulating layer 602 as mentioned on page 56 lines 7-18.

